

# *The Sugar Association, Inc.*

1511 K Street, N. W. Washington, D. C. 20005

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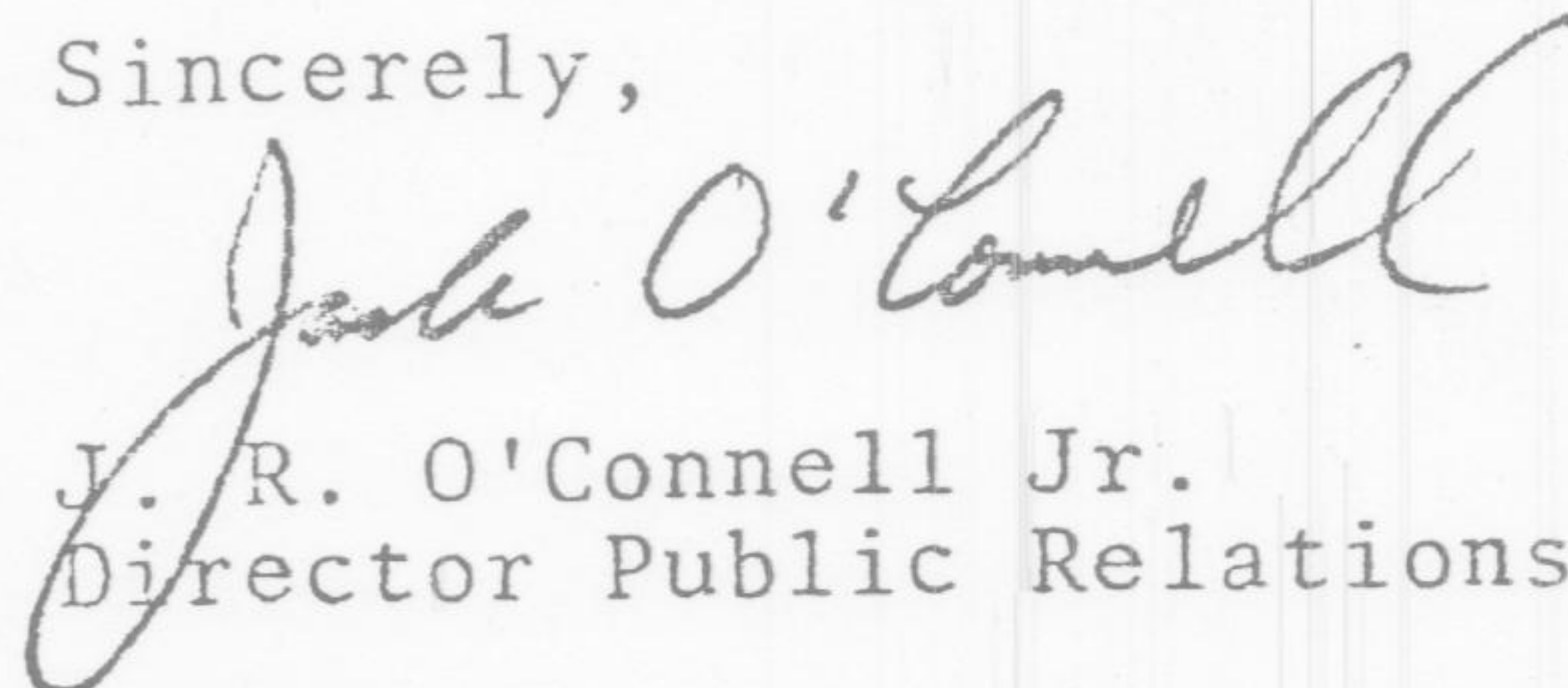
TO: BOARD OF DIRECTORS  
HEADS OF MEMBER COMPANIES  
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FOOD & NUTRITION ADVISORY COUNCIL

Gentlemen:

Enclosed for your background is a paper given by Bill Tatem on January 19 to the Chicago Nutrition Association during its Symposium on Sugar.

Also on the program were: Dr. P. J. Palumbo, Mayo Clinic; Dr. Gary Costly, Kellogg Co.; Dr. William Bowen, National Institute of Dental Research; and Betty Wedman, American Dietetic Assn.

Sincerely,



J. R. O'Connell Jr.  
Director Public Relations

JRO:db

enclosure

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REMARKS

JOHN W. TATEM, JR.

PRESIDENT

THE SUGAR ASSOCIATION, INC.

TO THE

CHICAGO NUTRITION ASSOCIATION

SYMPOSIUM ON SUGAR IN NUTRITION

JAN. 19, 1976



Ladies and Gentlemen:

I'm pleased to be here with you this morning to take part in this symposium on sugar in nutrition--for several reasons:

It's comforting to be among professionals. Too much of the Sugar Association's time has been spent reciting the particulars of sugar to those who have neither the dedication to absorb nor the experience to interpret the basics of nutrition.

Secondly, it's always gratifying to have the opportunity to state publicly the facts concerning sugar and health, as we know them, to an audience that may be able to do something with them.

Finally this forum permits me the opportunity to register publicly, and for the record, my personal dissatisfaction at the state of nutrition information in the United States today and make a suggestion or two as to what might be done to remedy the situation.

It's very kind of you to have let me lead off this morning to set the stage for the speakers following me. As a layman, I've learned over the years to lean on the scientific community, not only as a source of information but of substantiation--the only real means of establishing our credibility. I subscribe to Thomas Huxley, who said, "Science is nothing but



trained and organized common sense." The professionals who counsel us certainly bear this out. They have contributed immensely in recent years to an improved public understanding of sugar's role in nutrition and health. Thus while my comments represent the policies and position of the sugar industry, a major portion of my raw material has come from the scientific community.

History bears out that in all societies certain foods have had public priority regardless of their nutritional value. Man has always placed a high premium on sugar, as he did with honey before it. Studies indicate that sweet, one of the four natural tastes of man, is the most dominant and pleasant. We know too that it is indeed a natural taste and was not cultivated or forced upon us as some of the lay critics of sugar would have us believe.

Greek and Roman historians refer to sugar as a favored sweetener. And later commentators praised it because of the ease with which it could be produced, transported, exchanged and stored in great quantity. Over the years sugar became the economic mainstay of any number of tropical and sub-tropical countries. So great was the demand for sugar that additional sources were sought, primarily by countries seeking to free themselves from dependency on others. Hence the discovery of obtaining sucrose from the sugar beet in Europe during the Napoleonic Wars.



The Journal of Applied Nutrition recently in discussing sugar's evolution described it as first a luxury and medicine that gradually became a staple of nourishment. They point out that sugar provides a high energy value per unit, but more importantly it is a means of improving the palatability of other foods. "Today sugar is added to a large number of processed foods--canned fruits, processed meat products and many breads--as a preservative agent and is a desirable material for controlling texture and retaining moisture for the baking industry." As you undoubtedly know, most sugar in the United States is consumed today as an ingredient of a vast list of foods.

The Journal summarizes by saying that "From a macro-cosmic and diachronic approach to the role sugar has played on the world scene of multiple cultures, and is playing today, it is evident that sugar has had, and continues to have, a profound effect on the dietary habits and culinary arts of man, especially in the economically advanced nations."

And they close by saying that "Sugar is an outstanding example of a food that has become an intricate part of a multiplicity of the complexities of that part of a social organization involved in diet, economics, medicine, dentistry and politics on the national, local and international spheres of interaction."

High sounding perhaps, but necessary to establish sugar as a food with a place rather than as an additive generated by a suspect industrial community to fool the unsuspecting consumer.



In order to explore the subject of sugar and nutrition, one must wade through yards of pseudoscientific drivel dispensed by opportunists dedicated to exploiting the consuming public through confusion and by well-meaning but misinformed laymen. I believe it is fair to say that the current state of nutrition information in the United States is nothing less than deplorable--- from the promoters of useless and costly health foods and harmful fad diets to those who deprive the public of fluoridated water.

Simply and sadly, the promoters and quacks have established themselves as the sources of nutrition information. And they have done so by calculatedly enlisting the mass media to their ends. And here is the real tragedy. The consumer advocate and the unschooled journalist, both dedicated to helping the consumer, in their rush to provide answers and meet deadlines, are easily snared in the promoter's trap. The TV talk show "scientist" is probably the easiest to enlist in that he is constantly searching for sensational material to hype his ratings.

The result is that the promoter's hogwash is cleansed and relayed to the public as gospel by two groups who would be horrified to know what they've done--if they took the time to think about it. And sadly those who do quite often are too ashamed to acknowledge their culpability.

I'll cite just three examples in the interests of time, but there are many. Carlton Fredericks, who has been called a self-styled show business nutritionist, recently said that "sugar



was killing us by the millions" each year, and this was duly reported by Time Inc. in People magazine.

A man named William Dufty has written a book entitled "Sugar Blues." Dufty describes sugar as a debilitating drug responsible for the major portion of the world's grief. He and Gloria Swanson are their own sources of scientific information, while he describes himself as a former "patient." Radio and television stations around the country readily welcome him as a man of science. Food Engineering has branded the book ludicrous.

And Liberty National Life Insurance Company in Birmingham, that fountain of nutritional expertise, has run a magazine advertisement in the South saying that sugar kills 35,000 people a year. We understand one of the sources was a member of their advertising firm.

Obviously, it is impossible for the sugar industry or any other to compete for the public's attention with Merv Griffin, Gloria Swanson, Carlton Fredericks and the multitude of show business experts who have taken nutrition to their breasts.

With this in mind, we have concentrated our efforts on the scientific/medical community. Adam Smith's comment that "Science is the great antidote to the poison of enthusiasm and superstition," aptly applies to the sugar industry.

More recently we've moved afield with a program directed at professionals in the fields of dietetics and home economics. Our thought is a simple one. We believe that if we can take the facts of sugar and health--both the positive and negative factors--



to professionals and provide them sources of additional information and scientific substantiation, they will want and be able to convey an accurate story of sugar to the public.

We are encouraged by early feedback, which suggests to us that grassroots dietitians, home economists and teachers have a greater understanding of sugar than we had expected. This knowledge appears to support a basic trust in sugar's contribution as a sound and safe food.

I believe any discussion of sugar should begin with a look at carbohydrates. A booklet produced by the Nutrition Consortium in Bethesda, Maryland, entitled "Nutrition Labeling," is one of the best on the subject and succinctly summarizes the carbohydrate story.

Let me read to you:

"Since carbohydrates are really a basic fuel of the human body, nutritionists can scarcely believe that carbohydrates have gained the popular reputation of being harmful.

"Indeed, when a normal adult's intake falls below about 50 to 100 grams a day, there is some real medical hazard. And if a typical adult follows the eating patterns recommended in the scientific literature, the result is a carbohydrate consumption of over 350 grams daily for an adult."

In support of carbohydrates, the writers continue: "Many of the most important body functions are designed to use carbohydrate as their only, or at least primary fuel. For efficient operation,



for example, your brain must be powered by carbohydrates. Indeed the brain uses for its primary source of energy the sugar glucose, which comes mainly from the starch (carbohydrates) in the diet."

The Consortium booklet addresses itself to the obvious question: What if we don't eat enough carbohydrate for these body processes? It answers: "Then the body actually takes proteins and certain parts of fats and converts them into carbohydrates (sugars)."

In addition to the loss of protein for body building, the fad dieter who finds himself in this position can expect to pay considerably more for high-cost protein foods to obtain his indispensable carbohydrates.

What I'm saying to you, and authorities support it, is that there is no getting away from carbohydrates.

Sucrose, which comes under the broad macronutrient category of carbohydrates, is perhaps the purest and most economical carbohydrate available to us. I've mentioned its role in the diet and economy of advanced nations. But I should point out here that many experts see it as potentially the cheapest source of calories to supply the world's ever increasing requirement. I need not tell you that many of those who spend time with the problem see the supplying of calories to the world's hungry as representing a far greater potential emergency than does the need to supply protein.

Accurately, from our point of view, the Consortium points out: "One of the watchwords of the epidemic of food misinformation,



which today afflicts the nation, is that such dread diseases as cancer, stroke, arthritis and heart disease are commonly caused by the wide use of refined white flour and sugar."

They continue: "But common sense suggests that if the 'facts' about the true cause of such illnesses were so obvious, appropriate steps would be taken. Such misinformation, however, does convince millions that they must buy special expensive foods to avoid illness."

The subject of sucrose consumption in the United States has been a major headache for The Sugar Association. The opponents of sugar, neatly applying Goebbels "Big Lie" technique, rant at all listeners that Americans are consuming ever increasing amounts of sugar each year. Their inflation of U.S. Department of Agriculture consumption figures runs from 10 to 50 per cent. This is simply untrue. Per capita consumption here has been virtually unchanged at around 100 lbs. for about 50 years. And if we look at USDA figures for the past two, we will note a 10 per cent decline to about 90 lbs. I want to emphasize that all available data are delivery and disappearance figures--not consumption--which do not consider spillage, spoilage and waste. Experts suggest this loss could run as high as 15 to 20 per cent, making actual U.S. per-capita consumption perhaps 70 to 75 lbs. in 1975.

Thus from an epidemiological point of view increases in any disease in the United States cannot be blamed on a concurrent



increase in sucrose consumption.

In addition to per-capita sucrose disappearance numbers, we must constantly reiterate a point about carbohydrate consumption--that most nutritionists agree that we should get about 50 per cent of our calories from carbohydrates. With protein intake at about 15 per cent, one can limit his fat consumption to about 35 per cent. But USDA figures show that many Americans may be taking in as much as 40 to 50 per cent of their calories in fat, a trend, we are told, the majority of nutritionists would like to see reversed.

Many medical charges have been laid at sugar's door, and although some are too unscientific to take seriously, we have sought out and explored the available scientific knowledge to be absolutely sure that we are not the purveyors of sickness and death. I would like to review some of these with you today and try to put your minds at ease.

The first charge that comes to mind is that "Sugar makes you fat." This is the second "Big Lie" bandied about by our critics. Obesity is caused by an imbalance between intake of calories and the expenditure of caloric energy.

Sugar is a pure carbohydrate and as such produces 4 calories of energy per gram, the same as protein and half that of a gram of fat. "Calories" has become a much maligned word of late in the United States mainly owing to its use as a bench mark in weight



reduction. However, we must not ever forget that calories are an important factor in nutrition--in fact the most important one when compared to a lack of them. If we were discussing nutrition in some lesser developed countries, we would probably be searching for an answer on how to find and consume enough calories for national survival.

In the United States, however, a lack of calories is not the problem. On the contrary, our food supply is abundant, expensive but abundant. So our problem is one of selectivity, by which I mean choosing foods in variety that provide essential nutrients while at the same time balancing our over-all intake with energy expenditure. Within this context sucrose is no more fattening than the same weight of protein. And within these boundaries, sucrose takes its place as a source of energy and a modifier of other foods containing the micronutrients essential for proper nutrition.

Nutritionists whom we have consulted have suggested that the practical method of controlling one's caloric intake is to reduce total calories proportionately rather than concentrate on any one food. It is not a dramatic way of dieting but one that will serve the individual better over the years than the spectacular fad diets that create a yo-yo effect on body weight.

In discussing charges linking sucrose and corn sweeteners to a number of specific maladies, I rely on "Sugar in the Diet of Man," a group of papers prepared by seven doctors and two dentists



that first appeared early in 1975 in World Review of Nutrition and Dietetics, a prominent scientific journal published in Switzerland. The depth of research and the repute of the individuals involved make this reprint perhaps the most authoritative and formidable document addressing itself to sucrose and health extant. As a layman there is little I can add to it. I would be happy to provide a copy of it to any of you who may not have seen it and would like it for your files. In the meantime here are some of the highlights of this document and other authoritative papers:

The old wives tale that the consumption of sugar causes diabetes continues to be dispensed by certain lay observers and accepted by a sizable portion of the public. Since Dr. Palumbo of the Mayo Clinic will be reviewing this subject in detail shortly, I'll limit my comments to one from the diabetes summary written by Drs. Bierman and Nelson in SITDOM. "The causes of primary diabetes mellitus in man remain unknown; there is no evidence that excessive consumption of sugar causes diabetes."

The current "in" or fad disease is hypoglycemia. There are promoters of fad diets and quack remedies who go so far as to suggest that every other person in the United States is plagued by this malady. The symptoms attributed to this disease are so varied that they encompass those of dozens of better known illnesses and health problems. Laymen and pseudo-scientists have found this obscure affliction to be a handy vehicle for promoting dangerous low-carbohydrate reducing diets.



In attacking this idiocy, the Nutrition Consortium had this to say: "But true hypoglycemia with blood sugar levels low enough to produce symptoms attributed by inaccurate writers to hypoglycemia is one of the rarest of medical conditions. Our hormonal system has means of maintaining levels of blood sugar that are above those which allow serious symptoms to be experienced."

In addition they point out: "Contrary to what misinformed writers on the subject say, our diets are not too high in carbohydrates, and not too low in protein, as we have shown. Contrary to what is popularly declaimed, there are no millions of Americans whose low blood sugar is caused by their failure to be on a high-protein diet." Other researchers tell us that it is very difficult to find a true hypoglycemic for study purposes.

In preparing my comments I was not sure if this program would include a heart specialist to discuss the allegations concerning sugar and heart disease. Finding that it has not, I have expanded somewhat on my original material.

The guru for laymen who have sought to link sugar with atherosclerosis is Dr. John Yudkin, an emeritus London professor who has tried to prove his point through epidemiology. Dr. Yudkin has been challenged so frequently and by institutions



And finally: "I conclude, therefore, that the evidence available does not support the view that sugar, in the amounts present in diets such as those consumed in this country, is a causative factor in the development of CHD."

Dr. Grande's findings corroborate those of Drs. Keys and Salter.

The area of greatest concern to the sugar industry is dental caries. There is no question that sucrose plays an important role in this very costly and uncomfortable disease. Thankfully, the potential harm from caries is relatively minor when compared to heart disease, diabetes and other death-dealing diseases.

Carbohydrates in general and sugar in particular do play a part in the production of dental caries, but--and the but is a big one--it is only one factor in this disease. Heredity, oral hygiene, trace elements or their lack and other foods also contribute to this problem.

Three conditions within the oral cavity are essential for the development of dental caries: bacteria, substrate and susceptible teeth.

This is an extreme simplification of a complex inter-relationship, which Dr. Bowen will be discussing with you later in the program. However, I would like to point out that the Sugar Association's position on caries is essentially that described in detail in the caries chapter in "Sugar in the Diet of Man."



The facts indicate that caries is a multifactorial disease and is not going to be eradicated by the almost impossible and certainly impractical means of eliminating sucrose from our diets.

To the majority of experts, fluoridation of water, a known preventative, would be the first and most important step toward the eradication of caries. It has the potential of cutting the present incidence of caries in half.

Dr. James Dunning, professor emeritus of the Harvard School of Dental Medicine, speaking recently at the American Dental Association's annual meeting, said that, "The most important step a country can take to lower the incidence of dental disease is to fluoridate its water supplies.

"Hard as it often is to implement community fluoridation," he said, "it is harder to change the dietary habits of a population. Fluoridation is the only preventive measure for dental caries where major reductions have been consistently reported in large population groups."

Recent research in various countries and societies seems to suggest that trace elements in our food and water supply in addition to fluoride may play an important part in preventing this disease. Work in this area, along with that being done to develop a vaccine, represents tremendous research progress.



I'd like briefly to return to this "epidemic of food misinformation," as the Consortium so aptly phrased it, and make a plea for your assistance.

You who are professionals are needed to respond to this overwhelming mass of pseudoscientific misinformation concerning nutrition being dispensed daily by the opportunists. You don't be alone. We've been refreshed by the reaction to this onslaught from some in the scientific community. Doctors and professors who never before had the time or inclination to emerge from their laboratories and clinics to be heard are now making themselves available to the news media, for legislative testimony and educational seminars.

The University of California is one of several institutions that has commenced a program of nutrition education to combat the evils of misinformation. A regional organization, The Lehigh Valley Committee Against Health Fraud, has been a pioneer in fighting the expansive reaches of quackery. I hope these organizations will set an example for others. And, of course, the AMA has long been a pioneering institution in opposition to the quacks and promoters.

Right now the forces for accuracy in nutrition information are outnumbered and outmanned. The purveyors of inaccuracy delight in pointing to corrupt government agencies being manipulated by corrupt industries with the guidance of



corrupt members of the scientific community. And it helps sell alfalfa sprouts and fad diets. But it doesn't have to be this way. Progress is evident. You'd be surprised at just how many members of the scientific community, with legitimate credentials, shine when given the opportunity to perform in public.

With support from everyone in the field of nutrition, the media will take notice. When this occurs, the mechanism will be established to push aside the quacks and promoters and restore the scientific community to its proper position of authority.

In summary, we believe sugar to be absolutely safe. Its vulnerability is in the area of caries. We are dedicated to helping to find answers to this problem and are hoping to enlist others in this search. Trying to implicate sugar as a or the main risk factor in the many serious diseases to which man is prone is akin to accusing food in general as being the root of our health problems.

Diet is one of perspective. In that we as individuals have a right and an opportunity to select our foods, we are responsible for our own nutrition and good health. Those who guide the individual must counsel balance and moderation. Too much of any food can be injurious. The sugar industry endorses moderation. Sugar in moderation plays an important role in a sound diet.



It's been a great pleasure to be with you this  
morning. I'll do my best to answer your questions. Thank  
you.